

FACILITIES & COVERAGE CONTOURS

PROPOSED FM RADIO STATION

ILWACO, WASHINGTON

Channel 280 103.9 MHz

Class C3, Omnidirectional Antenna

HAAT = 100 Meters

TERRAIN AVG. = 44 Meters AMSL

DISTANCE TO CONTOURS
F(50,50)

RAD. CENTER = 144 Meters AMSL

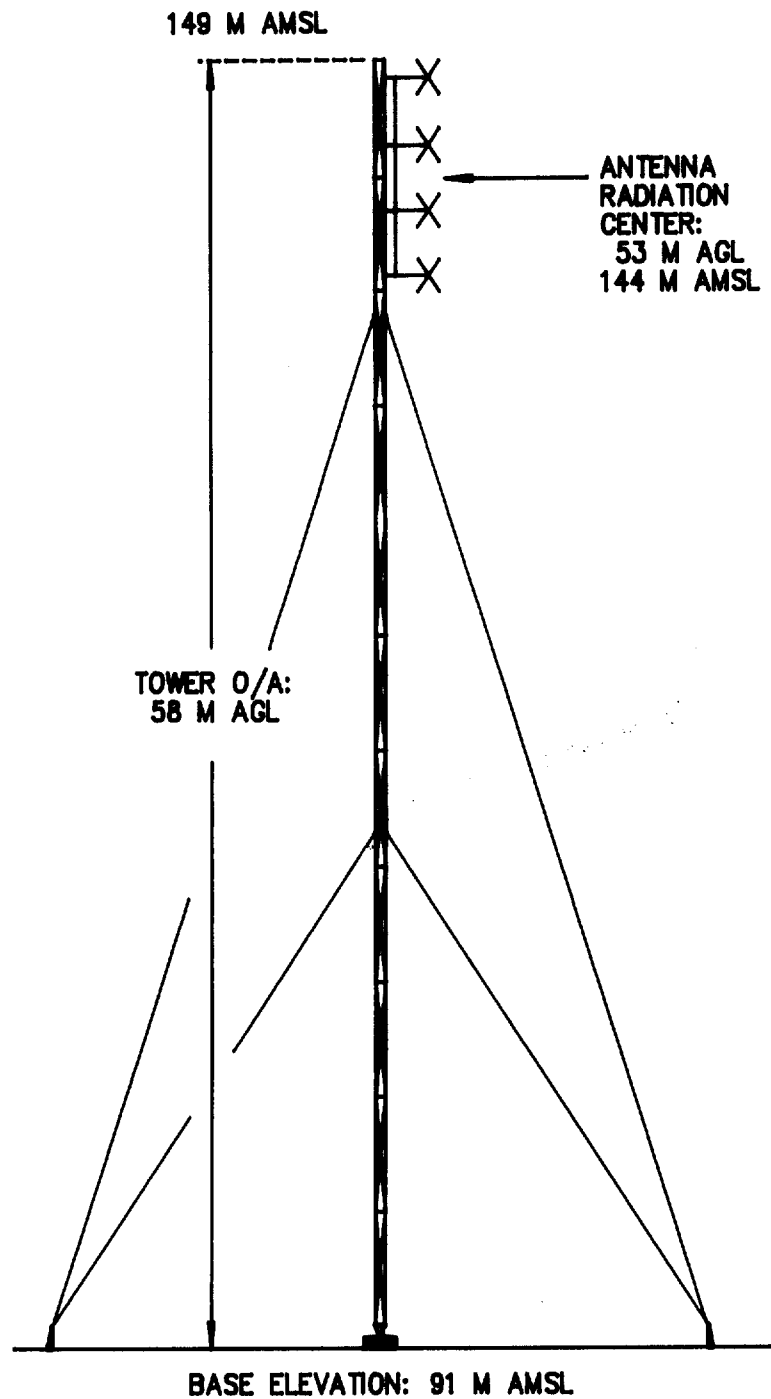
AZIMUTH (°True)	HAT (m)	HAAT (m)	ERP (kW)	ERP (dBk)	70 dBu (km)	60 dBu (km)
0	0	143	25.00	13.98	27.4	45.2
45	77	67	25.00	13.98	19.1	32.7
90†	155	-11	25.00	13.98	12.9	22.6
135	95	49	25.00	13.98	16.1	28.4
180	1	143	25.00	13.98	27.3	45.0
@225	17	127	25.00	13.98	25.7	42.9
@270	1	143	25.00	13.98	27.3	45.1
@315	3	140	25.00	13.98	27.1	44.8
*210	6	138	25.00	13.98	26.9	44.4

@ - Radial partially over water 3-16 km, land area only averaged.

† - Contour computed using 30 m per §73.313(e).

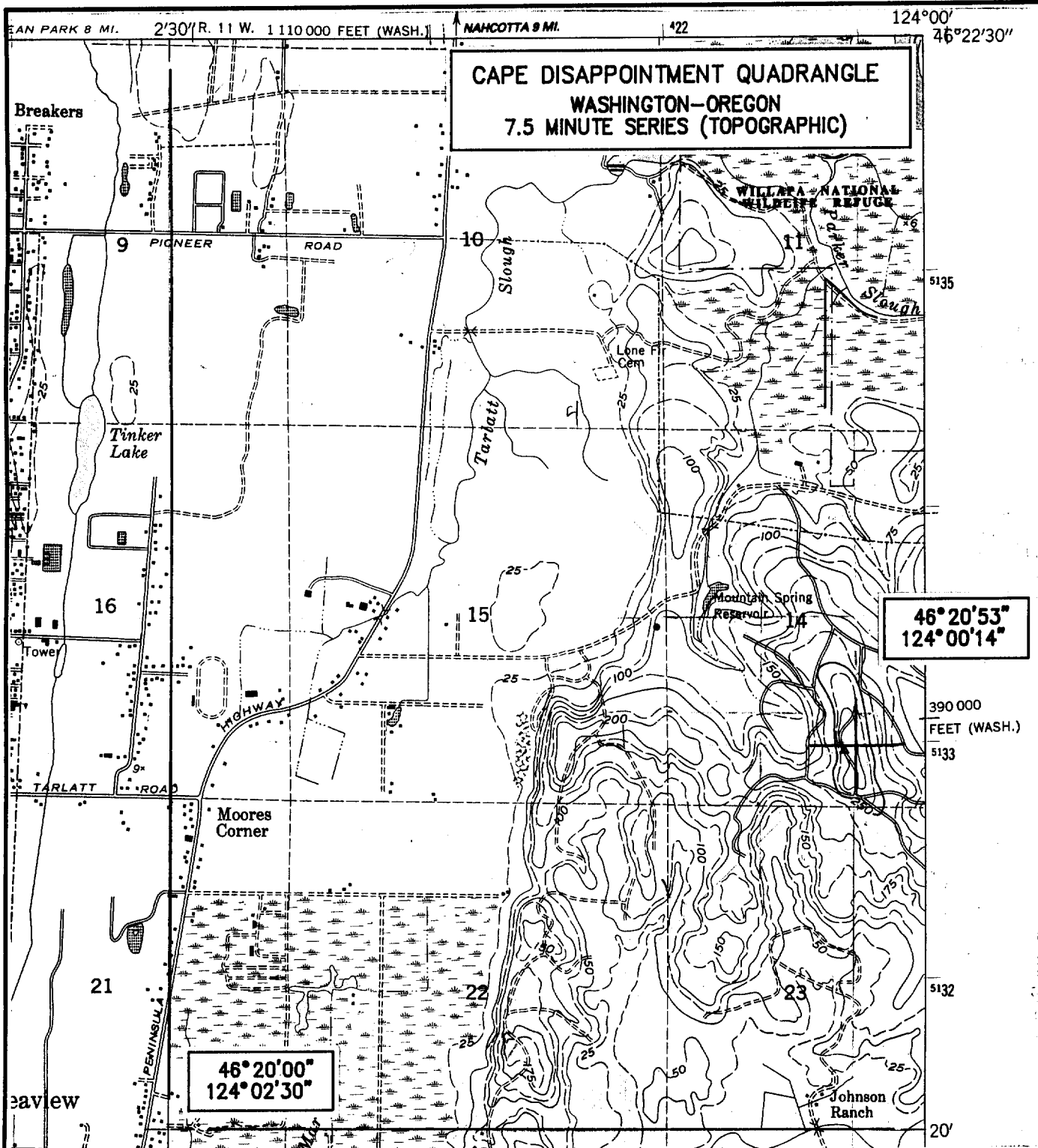
* - Extra radial, not included in average.

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EXHIBIT VB-8
VERTICAL PLAN SKETCH
PROP(FM) ILWACO, WA 5/92

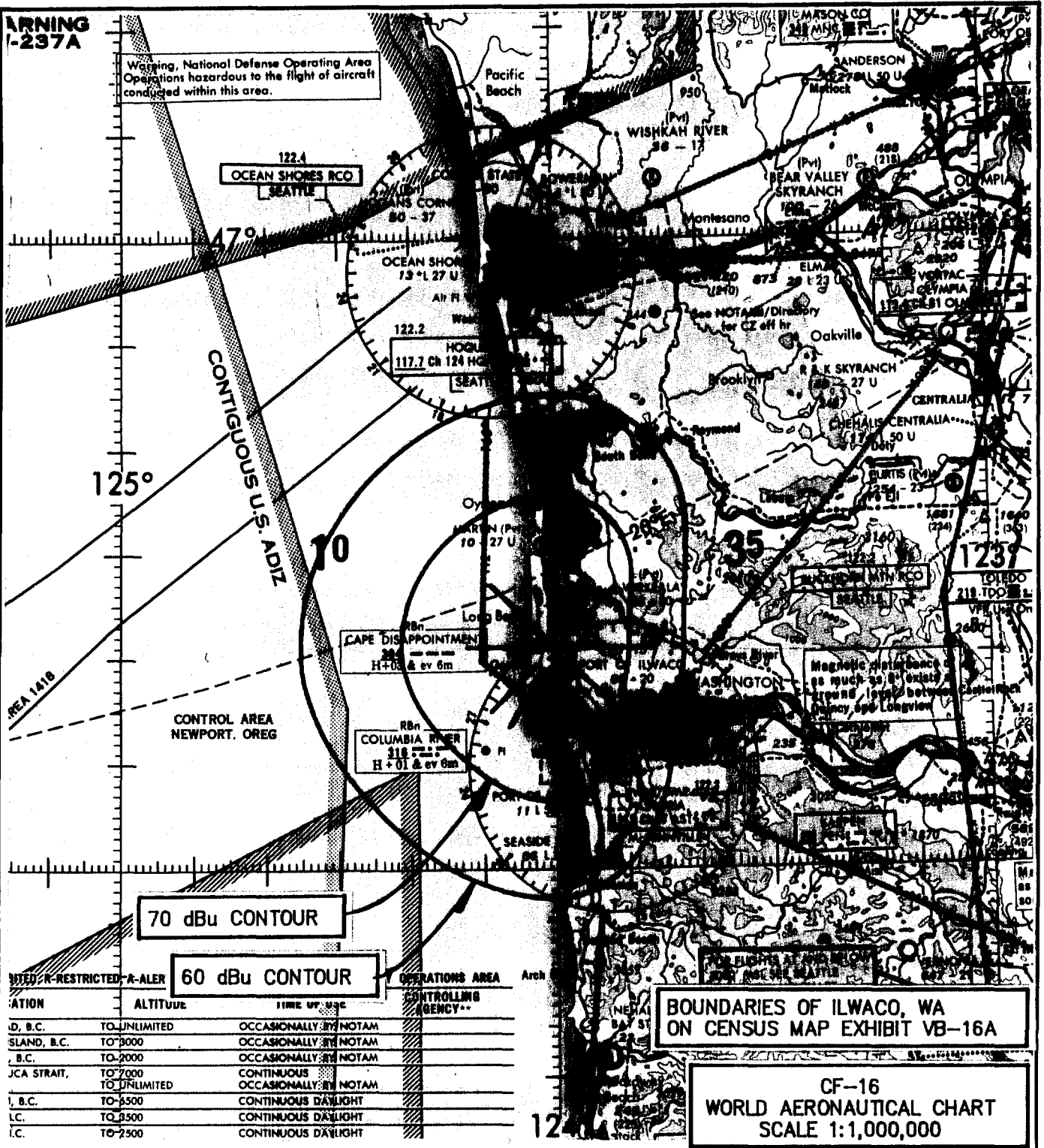


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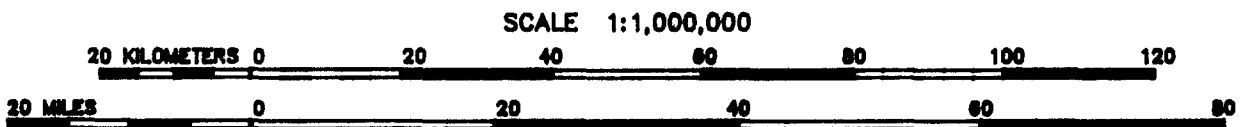
EXHIBIT VB-15
TRANSMITTER SITE MAP
PROP(FM) ILWACO, WA 5/92

**ARNING
-237A**

Warning, National Defense Operating Area
Operations hazardous to the flight of aircraft
conducted within this area.



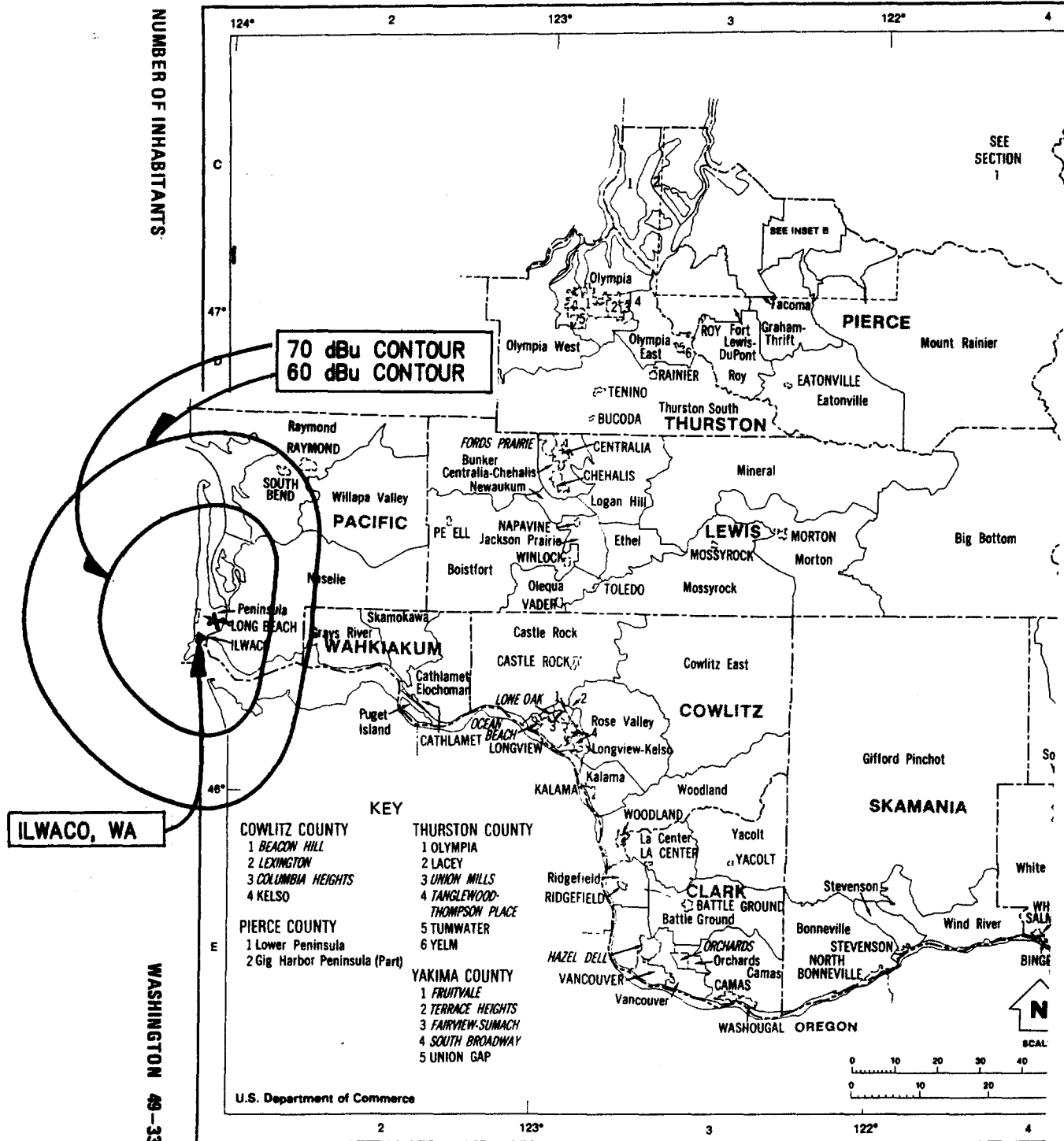
RESTRICTED A-ALERT	ALTITUDE	TIME OF USE	CONTROLLING AGENCY
D. B.C.	TO UNLIMITED	OCCASIONALLY BY NOTAM	
SLAND, B.C.	TO 3000	OCCASIONALLY BY NOTAM	
B.C.	TO 2000	OCCASIONALLY BY NOTAM	
JCA STRAIT,	TO 7000	CONTINUOUS	
	TO UNLIMITED	OCCASIONALLY BY NOTAM	
I. B.C.	TO 3500	CONTINUOUS DAYLIGHT	
I.C.	TO 3500	CONTINUOUS DAYLIGHT	
I.C.	TO 2500	CONTINUOUS DAYLIGHT	



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EXHIBIT VB-16
PROPOSED COVERAGE CONTOURS
PROP(FM) ILWACO, WA 5/92

NUMBER OF INHABITANTS



HATFIELD & DAWSON
CONSULTING ENGINEERS

EXHIBIT VB-16A
PARTIAL COVERAGE CONTOURS ON CENSUS MAP
PROP(FM) ILWACO, WA 5/92

Section V-B - FM BROADCAST ENGINEERING DATA	For Commission Use Only	
	File No.	_____
	ASB Referral Date	_____
	Referred by	_____

Name of Applicant

RICHARD M. SCHAFBUCH

Call Letters
(if issued) NEW

Is this application being filed in response to a window? X Yes ___ No

If Yes, specify closing date: MAY 21, 1992

Purpose of Application (Check appropriate boxes)

X Construct a new (main) facility

___ Construct a new auxiliary facility

___ Modify existing construction permit for main facility

___ Modify existing construction permit for auxiliary facility

___ Modify licensed main facility

___ Modify licensed auxiliary facility

If purpose is to modify, indicate below the nature of change(s) and specify the file number(s) of the authorizations affected.

___ Antenna supporting-structure height

___ Effective radiated power

___ Antenna height above average terrain

___ Frequency

___ Antenna location

___ Class

___ Main studio location

___ Other (summarize briefly)

File Number(s) _____

1. Allocation:

Channel No.	Principal community to be served:		
280	City ILWACO	County PACIFIC	State WA

Class (Check only one below)

___ A ___ B1 ___ B X C3

___ C2 ___ C1 ___ C

2. Exact location of antenna.

(a) Specify address, city, county, and state. If no address, specify distance and bearing relative to the nearest town or landmark.

TRANSMITTER LOCATED 5 KILOMETERS NORTHEAST OF CENTRAL ILWACO, WASHINGTON AT 30° TRUE.

(b) Geographical coordinates (to nearest second). If mounted on element of an AM array, specify coordinates of center of array. Otherwise, specify tower location. Specify South Latitude or East Longitude where applicable; otherwise, North Latitude or West Longitude will be presumed.

Latitude	46°	20'	53"	Longitude	124°	00'	14"
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3. Is the supporting structure the same as that of another station(s) or proposed in another pending application(s)? ___ Yes X No

If Yes, give call letter(s) or file number(s) or both _____ DNA

If proposal involves a change in height of existing structure, specify existing height above ground level, including antenna, all other appurtenances, and lighting, if any.

_____ DNA

Section V-B - FM BROADCAST ENGINEERING DATA (Page 2)

4. Does the application propose to correct previous site coordinates?
If Yes, list old coordinates.

Yes ☐ No ☒

Latitude	Longitude
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5. Has the FAA been notified of the proposed construction?

FAA NOTIFICATION
NOT REQUIRED

Yes ☐ No ☒

If Yes, give date and office where notice was filed and attach as an Exhibit a copy of FAA determination, if available.

Exhibit No.
DNA

Date _____ Office where filed _____ DNA _____

6. List all landing areas within 8 km of antenna site. Specify distance and bearing from structure to the nearest point of the nearest runway.

Landing Area	Distance (km)	Bearing (degrees True)
(a) PORT OF ILWACO	4.1	155°
(b) _____	_____	_____

7. (a) Elevation: (to the nearest meter)

(1) of site above mean sea level; _____ 91 meters

(2) of the top of supporting structure above ground (including antenna, all other appurtenances, and lighting, if any); and _____ 58 meters

(3) of the top of supporting structure above mean sea level [(a)(1) + (a)(2)] _____ 149 meters

- (b) Height of radiation center: (to the nearest meter) H = Horizontal; V = Vertical

(1) above ground _____ 53 meters (H)
_____ 53 meters (V)

(2) above mean sea level [(a)(1) + (b)(1)] _____ 144 meters (H)
_____ 144 meters (V)

(3) above average terrain _____ 100 meters (H)
_____ 100 meters (V)

8. Attach as an Exhibit sketch(es) of the supporting structure, labelling all elevations required in Question 7 above, except item 7(b)(3). If mounted on an AM directional-array element, specify heights and orientations of all array towers as well as location of FM radiator.

Exhibit No.
VB-8

9. Effective Radiated Power:

(a) ERP in the horizontal plane _____ 25.00 kW (H*) _____ 25.00 kW (V*)

- (b) Is beam tilt proposed?

Yes ☐ No ☒

If Yes, specify maximum ERP in the plane of the tilted beam, and attach as an Exhibit a vertical elevational plot of radiated field.

Exhibit No.
DNA

_____ kW (H*) _____ kW (V*)

* Polarization

10. Is a directional antenna proposed?

☐ Yes ☒ No

If Yes, attach as an Exhibit a statement with all data specified in 47 C.F.R. Section 73.316 including plot(s) and tabulations of the relative field.

Exhibit No.
DNA

11. Will the proposed facility satisfy the requirements of 47 C.F.R. Sections 73.315(a) and (b)?

☒ Yes ☐ No

If No, attach as an Exhibit a request for waiver and justification therefor, including amounts and percentages of population and area that will not receive 3.16 mV/m service.

Exhibit No.
DNA

12. Will the main studio be within the protected 3.16 mV/m field strength contour of this proposal?

☒ Yes ☐ No

If No, attach as an Exhibit justification pursuant to 47 C.F.R. Section 73.1125.

Exhibit No.
DNA

13. (a) Does the proposed facility satisfy the requirements of 47 C.F.R. Section 73.207?

☒ Yes ☐ No

(b) If the answer to (a) is No does 47 C.F.R. Section 73.213 apply?

☐ Yes ☐ No

(c) If the answer to (b) is Yes, attach as an Exhibit a justification, including a summary of any previous waivers.

Exhibit No.
DNA

(d) If the answer to (a) is No and the answer to (b) is No, attach as an Exhibit a statement describing the short spacing(s) and how it or they arose.

Exhibit No.
DNA

(e) If authorization pursuant to 47 C.F.R. Section 73.215 is requested, attach as an Exhibit a complete engineering study to establish the lack of prohibited overlap of contours involving affected stations. The engineering study must include the following:

Exhibit No.
DNA

(1) Protected and interfering contours, in all directions (360°), for the proposed operation

(2) Protected and interfering contours, over pertinent arcs, of all short-spaced assignments, applications, and allotments, including a plot showing each transmitter location, with identifying call letters or file numbers, and indication of whether facility is operating or proposed. For vacant allotments, use the reference coordinates as the transmitter location.

(3) When necessary to show more detail, an additional allocation study utilizing a map with a larger scale to clearly show prohibited overlap will not occur.

(4) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified.

(5) The official title(s) of the map(s) used in the exhibit(s).

14. Are there: (a) within 60 meters of the proposed antenna, any proposed or authorized FM or TV transmitters, or any nonbroadcast (except citizens band or amateur) radio stations; or (b) within the blanketing contour, any established commercial or government receiving stations, cable head-end facilities, or populated areas; or (c) within ten (10) kilometers of the proposed antenna, any proposed or authorized FM or TV transmitters which may produce receiver-induced intermodulation interference?

☐ Yes ☒ No

If Yes, attach as an Exhibit a description of any expected, undesired effects of operations and remedial steps to be pursued if necessary, and a statement accepting full responsibility for the elimination of any objectionable interference (including that caused by receiver-induced or other types of modulation) to facilities in existence or authorized or to radio receivers in use prior to grant of this application. (See 47 C.F.R. Sections 73.315(b), 73.316(e) and 73.318.)

Exhibit No.
ENG. RPT.

15. Attach as an Exhibit a 7.5 minute series U.S. Geological Survey topographic quadrangle map that shows clearly, legibly, and accurately, the location of the proposed transmitting antenna. This map must comply with the requirements set forth in Instruction V. The map must further clearly and legibly display the original printed contour lines and data as well as latitude and longitude markings, and must bear a scale of distance in kilometers.

Exhibit No.
VB-15

16. Attach as an Exhibit (name the source) a map which shows clearly, legibly and accurately, and with the original printed latitude and longitude markings and a scale of distance in kilometers:

Exhibit No.
VB-16, -16A

- (a) the proposed transmitter location, and the radials along which profile graphs have been prepared;
- (b) the 3.16 mV/m and 1.0 mV/m predicted contours; and
- (c) the legal boundaries of the principal community to be served.

17. Specify area in square kilometers (1 sq. mi. = 2.59 sq. km.) and population (latest census) within the predicted 1 mV/m contour.

Area 4836 sq. km.

Population *38,285
*1990 DATA

18. For an application involving an auxiliary facility only, attach as an Exhibit a map (Sectional Aeronautical Chart or equivalent) that shows clearly, legibly, and accurately, and with latitude and longitude markings and a scale of distance in kilometers:

Exhibit No.
DNA

- (a) the proposed auxiliary 1 mV/m contour; and
- (b) the 1 mV/m contour of the licensed main facility for which the applied-for facility will be auxiliary. Also specify the file number of the license.

19. Terrain and coverage data (to be calculated in accordance with 47 C.F.R. Section 73.313)

Source of terrain data: (check only one box below)

☒ Linearly interpolated
30-second database
(Source: NGDC)

☐ 7.5 minute topographic map

☐ Other (briefly summarize)

Radial bearing (degrees True)	Height of radiation center above average elevation of radial from 3 to 16 km (meters)	Predicted Distances	
		To 3.16 mV/m contour (kilometers)	To 1.0 mV/m contour (kilometers)
*			
0	SEE ENGINEERING REPORT		
45			
90			
135			
180			
225			
270			
315			

* Radial through principal community, if not one of the major radials. This radial should NOT be included in the calculation of HAAT.

20. Environmental Statement (See 47 C.F.R. Section 1.1301 et seq.)

Would a Commission grant of this application come within Section 1.1307 of the FCC Rules, such that it may have a significant environmental impact?

☐ Yes ☒ No

If you answer Yes, submit as an Exhibit an Environmental Assessment required by Section 1.1311.

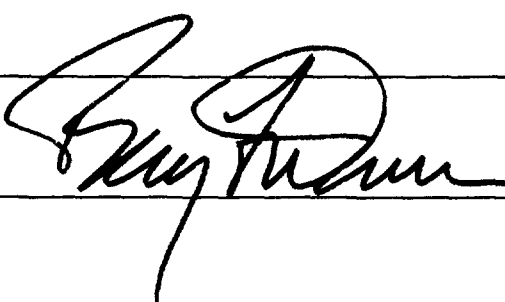
Exhibit No.
DNA

If No, explain briefly why not.

THE STRUCTURE PROPOSED IN THIS APPLICATION IS NOT LOCATED IN AN ENVIRONMENTALLY SENSITIVE AREA AS DEFINED IN SECTION 1.1307 OF THE FCC RULES. SEE ENGINEERING STATEMENT FOR NIER CALCULATIONS.

CERTIFICATION

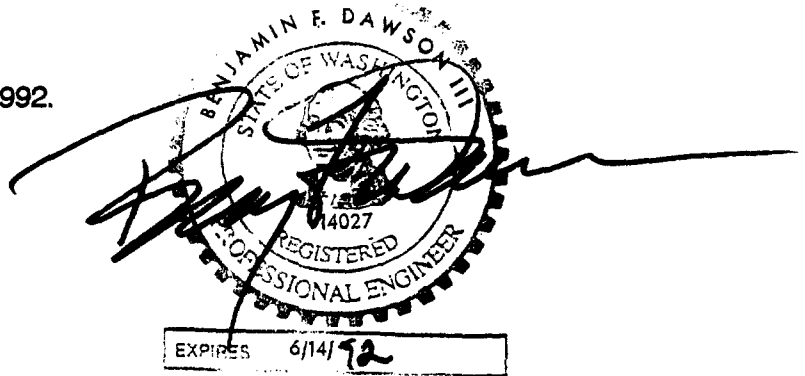
I certify that I have prepared this Section of this application on behalf of the applicant, and that after such preparation, I have read the foregoing and have found it to be accurate and true to the best of my knowledge and belief.

Name	Relationship to Applicant (e.g. Consulting Engineer)
BENJAMIN F. DAWSON III, P.E.	CONSULTING ENGINEER
Signature	Address (Include ZIP Code)
	4226 6TH AVE. N.W. SEATTLE, WA 98107
Date	Telephone No. (Include Area Code)
MAY 19, 1992	(206) 783-9151

6. Statement of Engineer

This Engineering Report, which is part of an application for construction permit for channel 280 C3, by Richard M. Schafbuch, have been prepared under my direct supervision. All representations contained herein are true to the best of my knowledge. I am an experienced radio engineer whose qualifications are a matter of record with the Federal Communications Commission. I am a partner in the firm of Hatfield and Dawson Consulting Engineers and am Registered as a Professional Engineer in the States of Washington and California.

Signed this 19th day of May, 1992.



Benjamin F. Dawson III, P.E.

Hatfield & Dawson Consulting Engineers